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## LOGINID:SSPTABEM1624

# PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

LERMII	VAL	(ENI	SK I	, 2, 3, OR !):2
* * *	* *	* *	* *	* Welcome to STN International * * * * * * * * *
NEWS	1			Web Page for STN Seminar Schedule - N. America
NEWS	2	MAR	31	IFICDB, IFIPAT, and IFIUDB enhanced with new custom
				IPC display formats
NEWS	3	MAR	31	CAS REGISTRY enhanced with additional experimental
				spectra
NEWS	4	MAR	31	CA/CAplus and CASREACT patent number format for U.S.
				applications updated
NEWS	5			LPCI now available as a replacement to LDPCI
NEWS	6	MAR		EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	7	APR		STN AnaVist, Version 1, to be discontinued
NEWS	8	APR	15	WPIDS, WPINDEX, and WPIX enhanced with new
				predefined hit display formats
NEWS		APR		EMBASE Controlled Term thesaurus enhanced
NEWS		APR		IMSRESEARCH reloaded with enhancements
NEWS	11	MAY	30	INPAFAMDB now available on STN for patent family
				searching
NEWS	12	MAY	30	DGENE, PCTGEN, and USGENE enhanced with new homology
				sequence search option
NEWS		JUN		EPFULL enhanced with 260,000 English abstracts
NEWS		JUN		KOREAPAT updated with 41,000 documents
NEWS	15	JUN	13	USPATFULL and USPAT2 updated with 11-character
NEWS	10	JUN	10	patent numbers for U.S. applications
NEWS	ТР	JUN	19	CAS REGISTRY includes selected substances from
NEWS	17	JUN	0.5	web-based collections CA/CAplus and USPAT databases updated with IPC
CMTN	1 /	JUN	23	reclassification data
NEWS	10	JUN	20	AEROSPACE enhanced with more than 1 million U.S.
MEMO	10	OON	30	patent records
NEWS	10	JUN	20	EMBASE, EMBAL, and LEMBASE updated with additional
MEMP	13	0.014	50	options to display authors and affiliated
				organizations
NEWS	20	JUN	3.0	STN on the Web enhanced with new STN AnaVist
HEND	20	0014	50	Assistant and BLAST plug-in
NEWS	21	JUN	3.0	STN AnaVist enhanced with database content from EPFULL
NEWS		JUL		CA/CAplus patent coverage enhanced
NEWS		JUL		EPFULL enhanced with additional legal status
				information from the epoline Register
NEWS	2.4	JUL	28	IFICDB, IFIPAT, and IFIUDB reloaded with enhancements
NEWS		JUL		STN Viewer performance improved
NEWS	26	AUG	01	INPADOCDB and INPAFAMDB coverage enhanced
NEWS	27	AUG	13	CA/CAplus enhanced with printed Chemical Abstracts
				page images from 1967-1998
NEWS	28	AUG	15	CAOLD to be discontinued on December 31, 2008
NEWS	29	AUG	15	CAplus currency for Korean patents enhanced
NEWS	30	AUG	25	CA/CAplus, CASREACT, and IFI and USPAT databases
				enhanced for more flexible patent number searching

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3, AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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=> fil reg

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FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

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STRUCTURE FILE UPDATES: 24 AUG 2008 HIGHEST RN 1043413-62-2 DICTIONARY FILE UPDATES: 24 AUG 2008 HIGHEST RN 1043413-62-2

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http://www.cas.org/support/stngen/stndoc/properties.html

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chain nodes : 1 2 3 4 5 6 7 8 9 10 11 12 13 14 chain bonds :

1-2 2-3 2-4 4-5 4-6 6-7 7-8 8-9 9-10 10-11 10-12 12-13 12-14 exact/norm bonds : 1-2 2-3 4-5 6-7 7-8 8-9 10-11 12-13 12-14 exact bonds : 2-4 4-6 9-10 10-12

8 TO

329

Match level :

1:Atom 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:Atom

#### I.1 STRUCTURE UPLOADED

=> s 11 sss sam

SAMPLE SEARCH INITIATED 09:44:40 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 348 TO ITERATE

100.0% PROCESSED 348 ITERATIONS SEARCH TIME: 00.00.01 8 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*
PROJECTED ITERATIONS: 5841 TO 8079

L2 8 SEA SSS SAM L1

=> s 11 sss full

PROJECTED ANSWERS:

FULL SEARCH INITIATED 09:44:54 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 7435 TO ITERATE

100.0% PROCESSED 7435 ITERATIONS SEARCH TIME: 00.00.01 116 ANSWERS

L3 116 SEA SSS FUL L1

=> d scan

L3 116 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN

Imidazo[1,2-a]pyrazine, 7,7'-[dithiobis(2-amino-1-oxo-3,1propanediy1)]bis[2-cyclohexy1-8-(cyclohexy1methy1)-5,6,7,8-tetrahydro-, [85-[7[5\*[5\*(R\*)]],8R\*]]- (9CI)

MF C44 H70 N8 O2 S2

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

- L3 116 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
- IN Glycinamide, N2-[(phenylmethoxy)carbonyl]-L-glutaminyl-L-asparaginyl-L cysteinyl-L-prolyl-N5-[imino[[(4-methoxyphenyl)sulfonyl]amino]methyl]-L ornithyl-, bimol. (3-3')-disulfide (9CI)
  SQL 12,6,6
- MF C80 H110 N24 O26 S4

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 116 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN

IN L-Alanine, L-alanyl-(2R, 3R)-2-amino-3-mercaptobutanoyl-L-prolylglycyl-2, 3-

didehydroalanyl-L-valyl-, bimol. (2-2')-disulfide (9CI) SQL 14,7,7

MF C50 H80 N14 O16 S2

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

Absolute stereochemistry.

PAGE 1-B

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

- L3 116 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
- IN L-Proline, O-(1,1-dimethylethyl)-L-threonyl-S-[(acetylamino)methyl]-L-cysteinyl-L-prolyl-L-prolyl-L-cysteinyl-L-prolyl-L-lamino)methyl]-L-cysteinyl-L-prolyl-L-prolyl-S-[(acetylamino)methyl]-L-cysteinyl-L-prolyl-L-alanyl-L-prolyl-L-
- MF C80 H128 N18 O22 S4

Absolute stereochemistry.

PAGE 1-A

Me

AcNH



PAGE 2-A

PAGE 2-B

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

- L3 116 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
- IN L-Lysine, L-valyl-L-isoleucyl-L- $\alpha$ -aspartyl-L-prolyl-L- $\alpha$ -glutamyl-L-prolyl-L-cysteinyl-L-prolyl-L- $\alpha$ -aspartyl-L-seryl-L- $\alpha$ -aspartyl-L-glutaminyl-L- $\alpha$ -glutamyl-L-prolyl-, bimol.  $(7+7^{+})$ -disulfide

SQL 30,15,15

F C140 H216 N34 O56 S2

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

PAGE 2-B

PAGE 3-A

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

- L3 116 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
- IN Imidazo[1,2-a]pyrazine, 7,7'-[dithiobis(2-amino-1-oxo-3,1-propanediy1)]bis[8-buty1-2-cyclohexy1-5,6,7,8-tetrahydro-,[85-[7[5\*[5\*(R\*)]],8R\*]]- (9CI)
- MF C38 H62 N8 O2 S2

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

- L3 116 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
- IN Glycinamide, 5-oxo-L-prolyl-L-asparaginyl-L-cysteinyl-L-prolyl-L-leucyl-, bimol. (3-3')-disulfide (9CI)
- SQL 12,6,6

MF C50 H78 N16 O16 S2

Absolute stereochemistry.

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

- L3 116 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
- IN L-Alanine, L-alanyl-(2S,3S)-2-amino-3-mercaptobutanoyl-L-prolylglycyl-2,3-didehydroalanyl-L-valyl-, bimol.  $(2\rightarrow 2')$ -disulfide (9CI)
- SQL 14,7,7

MF C50 H80 N14 O16 S2 Absolute stereochemistry.

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

- L3 116 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
- IN L-Proline, O-(1,1-dimethylethyl)-L-threonyl-S-[(acetylamino)methyl]-L-cysteinyl-L-prolyl-L-prolyl-L-cysteinyl-L-prolyl-L-alanyl-, bimol. (5-5')-disulfide (9CI)
- SQL 16,8,8
- MF C80 H128 N18 O22 S4
- \*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

Absolute stereochemistry.

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

- 116 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
- IN 1-Propanone, 3,3'-dithiobis[2-amino-1-(3-thiazolidiny1)-, (2R,2'R)-MF C12 H22 N4 O2 S4

Absolute stereochemistry.

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

- 116 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN Imidazo[1,2-a]pyrazine, 7,7'-[dithiobis(2-amino-1-oxo-3,1-IN propanediyl)]bis[8-butyl-5,6,7,8-tetrahydro-2-(2-methylphenyl)-, [8S-[7[S\*[S\*(R\*)]],8R\*]]- (9CI)
- C40 H54 N8 O2 S2 MF

Absolute stereochemistry.

PAGE 1-A

Me

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> fil casreact

 COST IN U.S. DOLLARS
 SINCE FILE
 TOTAL

 FULL ESTIMATED COST
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 179.95

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FILE CONTENT: 1840 - 23 Aug 2008 VOL 149 ISS 9

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FILE 'REGISTRY' ENTERED AT 09:44:21 ON 25 AUG 2008
                STRUCTURE UPLOADED
1.2
              8 S L1 SSS SAM
L3
            116 S L1 SSS FULL
     FILE 'CASREACT' ENTERED AT 09:46:50 ON 25 AUG 2008
=> s 13
L4
            11 L3
=> d 1-11 ford ibib abs
    ANSWER 1 OF 11 CASREACT COPYRIGHT 2008 ACS on STN
RX(5) OF 20 - REACTION DIAGRAM NOT AVAILABLE
ACCESSION NUMBER:
                         147:73015 CASREACT
TITLE:
                         Chiral O-(Z-a-aminoacyl) sugars: convenient
                         building blocks for glycopeptide libraries
AUTHOR(S):
                         Katritzky, Alan R.; Angrish, Parul; Narindoshvili,
                         Tamari
CORPORATE SOURCE:
                         Center for Heterocyclic Compounds, Department of
                         Chemistry, University of Florida, Gainesville, FL,
                         32611-7200, USA
SOURCE:
                         Bioconjugate Chemistry (2007), 18(3), 994-998
                         CODEN: BCCHES; ISSN: 1043-1802
PUBLISHER:
                         American Chemical Society
DOCUMENT TYPE:
                         Journal.
LANGUAGE:
                         English
   1,2:3,4-Di-O-isopropylidene-α-D-galactopyranose,
     1,2:5,6-di-O-isopropylidene-α-D-glucofuranose, and
     2,3:5,6-di-O-isopropylidene-α-D-mannofuranose are efficiently
     O-acvlated in 78-96% yields with readily available N-(Z-α-
     aminoacvl) benzotriazoles under microwave irradiation to give chiral
     O-(Z-α-aminoacyl) sugars, e.g., Z-L-Phe-O-galactopyranose. The
     original chirality was retained as evidenced by HPLC.
REFERENCE COUNT:
                         63
                               THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
T. 4
    ANSWER 2 OF 11 CASREACT COPYRIGHT 2008 ACS on STN
RX(19) OF 25 - REACTION DIAGRAM NOT AVAILABLE
ACCESSION NUMBER:
                         146:380175 CASREACT
TITLE:
                         Efficient microwave assisted access to chiral
                         O-(α-protected-amino-acyl) steroids
                         Katritzky, Alan R.; Angrish, Parul
AUTHOR(S):
CORPORATE SOURCE:
                         Center for Heterocyclic Compounds, Department of
                         Chemistry, University of Florida, Gainesville, FL,
                         32611-7200, USA
                         Steroids (2006), 71(8), 660-669
SOURCE:
                         CODEN: STEDAM; ISSN: 0039-128X
PUBLISHER:
                         Elsevier B.V.
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         English
    Chiral O-(α-protected-amino-acvl) steroids and O-(α-protected-
     dipeptidoyl) steroids are conveniently prepared under microwave irradiation in
     isolated yields of 65-96%, with complete chirality retention. The
    reaction utilized readily available N-(Z-\alpha-amino-acyl)benzotriazoles
     and Z-dipeptidoylbenzotriazole, with naturally occurring cholesterol,
     stigmasterol, sitosterol, or estrone.
REFERENCE COUNT:
                         55
                               THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
```

#### L4 ANSWER 3 OF 11 CASREACT COPYRIGHT 2008 ACS on STN

RX(10) OF 16 - REACTION DIAGRAM NOT AVAILABLE ACCESSION NUMBER: 146:359129 CASREACT

TITLE: Convenient and efficient preparation of N-protected

(α-aminoacyl) oxy-substituted terpenes and

(W-aminoacyi)oxy-substituted terpenes

AUTHOR(S): Katritzky, Alan R.; Angrish, Parul
CORPORATE SOURCE: Center for Heterocyclic Compounds, Department of

Chemistry, University of Florida, Gainesville, FL,

32611-7200, USA

SOURCE: Synthesis (2006), (24), 4135-4142 CODEN: SYNTBF; ISSN: 0039-7881

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Chiral N-protected (α-aminoacyl)oxy-substituted terpenes and

alkanes, including diastereomeric analogs, were conveniently and

efficiently prepared from the corresponding readily available chiral and racemic 1-{[(benzyloxycarbonyl)amino]acyl}benzotriazoles under microwave

irradiation with naturally occurring terpene alcs. or alkanols.

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

### L4 ANSWER 4 OF 11 CASREACT COPYRIGHT 2008 ACS on STN

1. SOC12, THF

CON: STAGE(1) 20 deg C; 20 minutes, 40 - 50 deg C STAGE(2) 0 deg C; 2 hours, 20 deg C

ACCESSION NUMBER: 144:488928 CASREACT

TITLE: The efficient preparation of di- and tripeptides by

coupling N-(Cbz- or fmoc-α-

aminoacyl)benzotriazoles with unprotected amino acids
AUTHOR(S): Katritzky, Alan R.; Angrish, Parul; Suzuki, Kazuyuki
CORPORATE SOURCE: Center for Heterocyclic Compounds, Department of

Chemistry, University of Florida, Gainesville, FL, 32611-7200, USA

SOURCE: Synthesis (2006), (3), 411-424 CODEN: SYNTBF; ISSN: 0039-7881

CODEN: SYNTBF; ISSN: 0039-788
PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

AB N-protected benzotriazoles [Pg-AA-Bt [Pg = benzyloxycarbonyl (Cbz), 9-fluorenylmethyloxycarbonyl (Fmoc); AA = amino acid residue, Bt =

benzotriazol-1-y1]] and N-protected peptidylbenzotriazoles

[Cbz-AA(1)-AA(2)-Bt] are coupled in aqueous acetonitrile solution with free amino

acids or dipeptides to prepare chirally pure dipeptides and tripeptides. Support for the complete retention of chirality was obtained by parallel expts. involving D-Ala, L-Ala, and DL-Ala for the preparation of di-and tripeptides. This and other evidence for chiral integrity was supported by NMR and HPLC analyses.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 11 CASREACT COPYRIGHT 2008 ACS on STN

Benzotriazolol P der, EtN(Pr-i)2, DMF

RX(2) OF 181

ACCESSION NUMBER: 140:304052 CASREACT

TITLE: Synthesis of an S-linked glycopeptide analog derived

from human Tamm-Horsfall glycoprotein

AUTHOR(S): Zhu, Xiangming; Haag, Tobias; Schmidt, Richard R. CORPORATE SOURCE: Fachbereich Chemie, Universitaet Konstanz, Konstanz,

D-78457, Germany SOURCE: Organic & Biomolecular Chemistry (2004), 2(1), 31-33

CODEN: OBCRAK: ISSN: 1477-0520 PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

Direct base-catalyzed S-glycosylation of a cysteine and a homocysteine containing peptide with O-acetyl protected bromides in DMF-water solution furnished two glycopeptide fragments. The two glycopeptide fragments were linked to the target glycopeptide with two S-glycosyl residues mimicking a part of Tamm-Horsfall glycoprotein.

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

#### ANSWER 6 OF 11 CASREACT COPYRIGHT 2008 ACS on STN

RX(29) OF 92 - REACTION DIAGRAM NOT AVAILABLE

140:253873 CASREACT ACCESSION NUMBER:

TITLE: Biomimetic studies on the mechanism of stereoselective lanthionine formation

Zhu, Yantao; Gieselman, Matt D.; Zhou, Hao; Averin, AUTHOR(S):

Olga; van der Donk, Wilfred A.

CORPORATE SOURCE: Department of Chemistry, University of Illinois at

Urbana-Champaign, Urbana, IL, 61801, USA

SOURCE: Organic & Biomolecular Chemistry (2003), 1(19),

3304-3315 CODEN: OBCRAK: ISSN: 1477-0520

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal LANGUAGE: English

Selenocysteine derivs, are useful precursors for the synthesis of peptide conjugates and selenopeptides. Several diastereomers of

Fmoc-3-methyl-Se-phenylselenocysteine [FmocMeSec(Ph)] were prepared and used in solid phase peptide synthesis (SPPS). Once incorporated into peptides, the phenylselenide functionality provides a useful handle for the site and stereospecific introduction of E- or Z-dehydrobutyrine residues into peptide chains via oxidative elimination. The oxidation conditions are mild, can be performed on a solid support, and tolerate functionalities commonly found in peptides, including variously protected cysteine residues.

Dehydropeptides containing unprotected cysteine residues undergo intramol. stereoselective conjugate addition to afford cyclic lanthionines and methyllanthionines, which have the same stereochem. as found in lantibiotics, a family of ribosomally synthesized and post-translationally

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

modified peptide antibiotics. The observed stereoselectivity is shown to originate from a kinetic rather than a thermodn, preference. REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS

ANSWER 7 OF 11 CASREACT COPYRIGHT 2008 ACS on STN

RX(1) OF 9 - REACTION DIAGRAM NOT AVAILABLE

ACCESSION NUMBER: 139:396156 CASREACT TITLE: Use of thiosulfonate for the protection of thiol

groups in peptide ligation by the thioester method Sato, Takeshi; Aimoto, Saburo AUTHOR(S):

CORPORATE SOURCE: Institute for Protein Research, Osaka University,

Suita, Osaka, 565-0871, Japan SOURCE: Tetrahedron Letters (2003), 44(44), 8085-8087

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

Use of thiosulfonate for protecting thiol (-SH) groups in peptide ligation by the thioester method was examined Thiosulfonate was introduced and was stable in the presence of silver ion, 4-dihydro-3-hydroxy-4-oxo-1,2,3benzotriazine, and diisopropylethylamine. Based on these results, a strategy for using the thioester method and the native chemical ligation method in the synthesis of a single polypeptide, H-Met-Ala-Glu-Asp-Trp-Leu-Asp-Cys-Pro-Ala-NH2, is described.

REFERENCE COUNT: THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 11 CASREACT COPYRIGHT 2008 ACS on STN

RX(4) OF 6

Morpholine, CH2C12

ACCESSION NUMBER: 123:199401 CASREACT

TITLE: Preparation of amino acid disulfide cardiovascular

agents and vasodilators

INVENTOR(S): Sandrock, Klaus; Feelisch, Martin; Boekens, Hilmar PATENT ASSIGNEE(S): Schwarz Pharma AG, Germany

SOURCE:

Ger. Offen., 18 pp. CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	TENT NO.		KIND	DATE		APPLICATION NO.	DATE			
DE	4321306		A1	19950105		DE 1993-4321306	19930626			
WO	9500477		A1	19950105		WO 1994-DE726	19940624			
	W: CA,	CN,	JP, KR	, US						
	RW: AT,	BE,	CH, DE,	DK, ES,	FR,	GB, GR, IE, IT, LU,	MC, NL,	PT,	SE	
EP	705244		A1	19960410		EP 1994-918734	19940624			
EP	705244		B1	19981104						
	R: AT,	BE,	CH, DE,	DK, ES,	FR,	GB, GR, IE, IT, LI,	LU, MC,	NL,	PT,	SE
CN	1126466		A	19960710		CN 1994-192601	19940624			
CN	1045594		C	19991013						

AT ES CA US	0851177 172963 2126122 2165992 5661129 1013283 (APPLN.	INFO.:	T T T3 C A A1	19961210 19981115 19990316 20000822 19970826 20000519	AT ES CA US HK DE	1994-502335 1994-918734 1994-918734 1994-2165992 1995-557106 1998-114613 1993-4321306	19940624 19940624 19940624 19940624 19951205 19981222 19930626
PRIORII	APPLN.	INFO.:				1993-4321306 1994-DE726	19930626

OTHER SOURCE(S): MARPAT 123:199401 GI

AB The title compds. [I; R, R' = (un)substituted nitratoalkyl, (un)substituted Ph; Rl, Rl', R4, R4', R5, R5' = H, lower alkyl; R2, R2' = H, (un)substituted lower alkyl, Ph, methoxyphenyl, etc.; R3, R3' = H0, lower alkenoxy, (un)substituted lower alkoxy, (un)substituted aryloxy, etc; m, m', n, n', p, p', q, q' = 0-10[ le.g., N,N'-did.n-itratopivaloyl)-L-cystine di-Bt ester (II)], useful as cardiovascular agents and vasodiators, are prepared and a I-containing formulation presented. II was prepared and demonstrated a EC50 for 50% dilation of excised rat aorta rings of 1.5 x 10-6 M.

## L4 ANSWER 9 OF 11 CASREACT COPYRIGHT 2008 ACS on STN

RX(1) OF 4 - REACTION DIAGRAM NOT AVAILABLE ACCESSION NUMBER: 121:109646 CASREACT

TITLE: Stepwise disulfide bond formation using

dimethylsulfoxide / aqueous HCl system
AUTHOR(S): Tamamura, Hirokazu; Otaka, Akira; Koide, Takaki;

Fujii, Nobutaka

CORPORATE SOURCE: Fac. Pharm. Sci., Kyoto Univ., Kyoto, 606, Japan

SOURCE: Peptide Chemistry (1993), 31st, 73-6 CODEN: PECHDP, ISSN: 0388-3698

DOCUMENT TYPE: Journal LANGUAGE: English

- AB The disulfide exchange reaction of homodimer peptide I with H-Cyg (Acm)-Phe-Ile-Arg-OH was achieved by treatment with AgOTf (Tf = triflate) and CF3CO2H/anisole followed by treatment with 50% DMSO/IN HCl to give heterodimer peptide II. As a model of regionslective synthesis, tachyplesin I (III) was prepared using the the above disulfide exchange reaction on monosulfide III. III was prepared by the air oxidation of linear peptide IV, which was obtained by the solid-phase method.
- L4 ANSWER 10 OF 11 CASREACT COPYRIGHT 2008 ACS on STN

RX(17) OF 88

RX(17) OF 88

ACCESSION NUMBER: TITLE:

113:41301 CASREACT

Synthesis of cystine peptides 21-25/70-73 and 35-39/56-59 of the β-subunit of human

choriogonadotropin

AUTHOR(S): CORPORATE SOURCE:

Chaturvedi, Sanjeev; Bahl, Om P. Dep. Biol. Sci., State Univ. New York, Buffalo, NY, 14260, USA

International Journal of Peptide & Protein Research (1990), 35(2), 133-40 CODEN: IJPPC3; ISSN: 0367-8377

Journal

English

DOCUMENT TYPE: LANGUAGE:

SOURCE:

```
H-Glu-Gly-Cys-Pro-Val-OCH<sub>2</sub>Ph
H-Pro-Gly-Cys-Pro-OCH<sub>2</sub>Ph
I
H-Ala-Gly-Tyr-Cys-Pro-OCH<sub>2</sub>Ph
H-Val-Cys-Asn-Tyr-OCH<sub>2</sub>Ph
```

AB The syntheses of two asym. cystine peptides with the amino acid residues 21-25/70-73 (I) and 35-39/56-59 (II), based on the linear amino acid sequence and the disulfide bond assignment in the  $\beta$ -subunit of human choriogonadotropin (hGG- $\beta$ ), are described. S-Trityl and S-acetamidomethyl peptide fragments of each cystine peptide were prepared in solution phase and were subjected to oxidation with I2/MeOH to form the disulfide bridge. The cystine peptides were characterized by their amino acid analyses and fast atom bombardment mass spectrometry. Immunol. characterization by several homologous RIA systems showed that peptide 21-25/70-73 had significant hCG, hCG- $\beta$ , and hLH activities, while peptide 35-39/56-59 failed to reveal any immunoreactivity.

L4 ANSWER 11 OF 11 CASREACT COPYRIGHT 2008 ACS on STN

RX(30) OF 580 - REACTION DIAGRAM NOT AVAILABLE

ACCESSION NUMBER: 111:154345 CASREACT
TITLE: Synthesis of the bis-cystinyl-fragment

225-232/225'-232' on the human IgGl hinge region

AUTHOR(S): Wuensch, E.; Moroder, L.; Goehring; Romani, S.; Musiol. H. J.; Goehring, W.; Bovermann, G.

CORPORATE SOURCE: Dep. Peptide Chem., Max Planck Inst. Biochem.,

Martinsried, Fed. Rep. Ger.

SOURCE: International Journal of Peptide & Protein Research

(1988), 32(5), 368-83

CODEN: IJPPC3; ISSN: 0367-8377

DOCUMENT TYPE: Journal LANGUAGE: English

GI

H-THr-Cys-Pro-Pro-Cys-Pro-Ala-Pro-OH H-THr-Cys-Pro-Pro-Cys-Pro-Ala-Pro-OH I

AB In human IqG1, the two heavy chains are crosslinked in the central portion of the mol. by two disulfide bridges forming a double chain bis-cystinyl cyclic peptide in a parallel alignment. For synthetic studies, the sequence portion 225-232/251-232 (I) was chosen. By a combination of the S-tert-butylthio and the S-acetamidomethyl groups, selective cysteine pairings in two successive steps produced the hinge hexadecapetide in parallel and antiparallel alignments as homogeneous and well characterized compds. Thiol-disulfide interchange expts. on the antiparallel dimer led to over 90% conversion to the parallel isomer. Similarly, random air-oxidation was found to generate again mainly the parallel dimer, thus strongly suggesting that this sequence portion contains sufficient structural information for a correct assembly of the two heavy chains of Igs without decisive contribution of a protein disulfide isomerase.

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